

STUDIES ON IDIOCERINAE LEAFHOPPERS, XVII:
THREE NEW NEOTROPICAL GENERA
(HOMOPTERA: CICADELLIDAE)

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Abstract.—*Parachunroides wandae*, *Adchunroides triangularis*, *Rotundicerus luteus* are new genera and new species of Idiocerinae leafhoppers and are described from specimens from Guyana, South America. The new genera and species are illustrated and compared with allied taxa.

Among material of idiocerine leafhoppers sent to me for identification by Dr. W. J. Knight, from the British Museum (Natural History) (BMNH), several undescribed genera and species were found; three of which are described below. Two of these are somewhat similar to *Chunroides* Evans and therefore are compared with it. Because *Optocerus* Freytag has somewhat similar coloration it is also considered in the comparative notes.

The types are deposited in BMNH and in my collection (JMC). In the descriptions that follow, 12.5 micrometer units are equivalent to 1 mm. All the specimens come from Guyana, formerly British Guiana.

Parachunroides Maldonado-Capriles, new genus

Type-species: *Parachunroides wandae*, n. sp.

Head, pronotum, and scutellum mahogany red, densely spotted with small cream-yellow spots of different sizes (Fig. 12); gena and lora less conspicuously spotted; postclypeus and anteclypeus stramineous, spotted with brown; scutellum with light colored triangular area near each basal angle. Forewings semitransparent, with a brownish tinge; veins mahogany red, conspicuously spotted with cream yellow. Femora reddish brown, tibiae and abdominal sterna yellowish brown.

Vertex short, slightly shorter medianly than next to eye, about 6× as wide as long, finely shagreen. Eyes contiguous to hind margin of head. Head wider than pronotum; face wider across eyes than long, somewhat flattened; lateral margins of postclypeus arcuate; upper frontal suture curved upward to ocellus. Ocelli nearly as far apart as distance from ocellus to eye. Lora short, semicircular, slightly elevated. Anteclypeus subquadrangular, slightly longer than wide basally, apex notched. Genae with margin slightly concave at midlength. Filament of antenna hairlike. Tibiae quadrangular in cross-section; strongly spinulose on 3 margins, inner-upper margin with about 30 hairlike spines. Scutellum longer than head

and pronotum together. Forewing longer than abdomen; with 4 apical, 2 subapical, and one discal cell; 2nd costal present; outer apical extending basad along outer margin of outer anteapical (Fig. 1).

Female Genitalia.—VII sternum slightly longer than VI (3:2.5), caudal margin broadly and shallowly concave; pygofer slightly longer than abdominal sterna together, bare; ovipositor narrow, surpassing pygofers.

Male Genitalia (Figs. 2-10).—Valve flattened laterally, apical $\frac{1}{2}$ semi-circular, long-haired along upper margin, on ventral aspect triangular. Style with lower outer ledge of caudal end absent, fine hairs in its place. Aedeagus with a wide small base; shaft long, slender, curved cephalad. Pygofer semicircular, inner margin entire. Connective inverted Y-shaped. Tenth tergum short, hoodlike. Length 5.5-5.7 mm.

The mottled or spotted coloration of the head and pronotum of *Parachunroides* n. gen., *Optocerus* Freytag, *Adchunroides* n. gen., and *Chunroides* Evans set them apart from other American genera. These four genera can be separated by the following key:

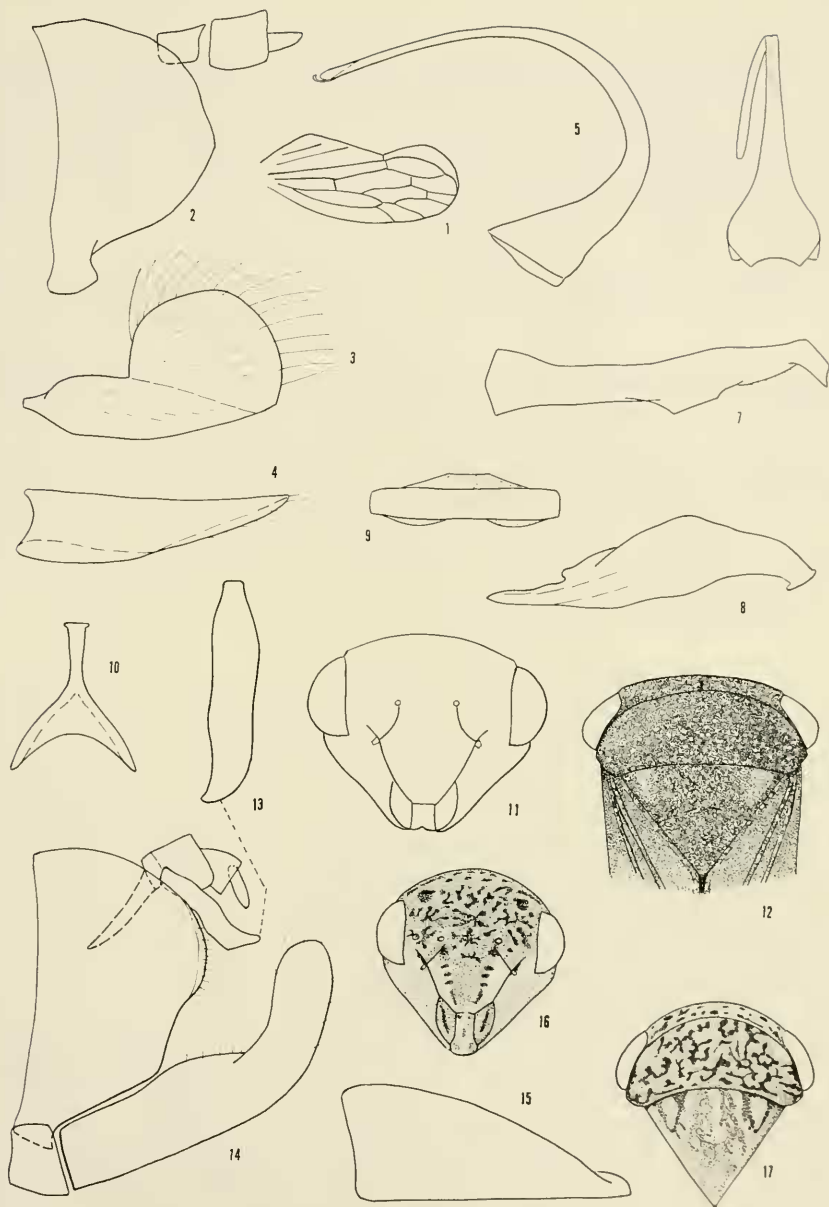
1. Small, under 2.6 mm; with a strong seta laterally below each eye; outer apical cell pedunculate *Optocerus* Freytag
- Longer, over 4.5 mm; without such seta below each eye; outer apical cell not pedunculate 2
2. Face convex; ocelli set apart at $2\times$ the distance from ocellus to eye *Adchunroides*, n. gen.
- Face flattened; ocelli set apart at nearly the same distance to eye 3
3. Outer apical cell about as long as 3rd, their bases nearly in line; apex of scutellum slightly swollen, raised; ocellar area sunken *Chunroides* Evans
- Outer apical cell much longer than 3rd, its angular base far basad of 3rd; apex of scutellum not swollen; ocellar area not sunken *Parachunroides*, n. gen.

The genitalia of these genera also set them apart. The cross-section of the tibiae is rectangular in *Parachunroides* and oval in the other 3 genera.

Parachunroides wandae Maldonado-Capriles, new species
(Figs. 1-12)

Male.—Color of head, pronotum, forewings, scutellum, and abdomen as described for genus. Mesopleura brown, black oval area above coxa; metapleura brownish. Profemur black on basal $\frac{1}{2}$, apical $\frac{1}{2}$ and meso- and metafemur reddish brown. Tibiae yellowish brown; base of spines on metafemur yellowish. Abdominal sterna with apical margin yellowish.

Vertex slightly shorter medianly than next to eyes (1.5:2); pronotum about $3.5\times$ as wide as long (27:8), posterior margin broadly and shallowly



Figs. 1-12. *Parachunroides wandae*. 1, forewing. 2, pygofer and anal segments, lateral. 3, plate, lateral. 4, plate, ventral. 5, aedeagus, lateral. 6, aedeagus, caudal. 7, style, lateral. 8, style, dorsal. 9, valve, ventral. 10, connective, dorsal. 11, face, outline. 12, anterior half, dorsal. Figs. 13-17. *Adchunroides triangularis*. 13, appendix of pygofer, caudal. 14, genital capsule, lateral. 15, plate, ventral. 16, face. 17, head, pronotum, scutellum, dorsal.

concave; scutellum $\frac{3}{4}$ as long as wide (15:20). Face flattened, wider across eyes than long (29:25); lateral margins of postclypeus and lateral frontal sutures as described for genus; ocelli set apart at a distance slightly longer than from ocellus to eye (7:6). Anteclypeus with apex concave, longer than wide apically (5:3). Metatibia with 2 outer rows of spines consisting of 7 semidecumbent strong spines. Genitalia as in Figs. 2 to 10. Length 5.5 mm.

Female.—Coloration and shape mostly as in male. Vertex with anterior margin flatter than in male, $3\times$ longer close to inner margin of eye than medianly (3:1). Anteclypeus as in male, slightly longer than wide (5:4). Postclypeus and shape and spines of legs as in male. Seventh sternum with posterior margin broadly concave; ovipositor surpassing pygofer by $3\times$ its width and almost reaching apex of forewing. Length 5.7 mm.

Holotype.—♂, British Guiana, Katari Sources, January–February 1936, C. A. Hudson coll. BM-1936-360. *Allotype*.—♀, New River, c 750 ft, 26 February 1936, C. A. Hudson. Both in BMNH.

Etymology.—I have named this species after my student-assistant Miss Wanda Beauchamp.

Adchunroides Maldonado-Capriles, new genus

Type-species: *Adchunroides triangularis*, n. sp.

Vertex and pronotum stramineous, densely mottled with reddish brown, anteclypeus, gena, postclypeus, and lora stramineous, the 1st 2 unmarked. Scutellum stramineous, triangular spot near each basal angle with brown margins; disc ornamented with light brown. Forewings semitransparent, with a brownish tinge, deeper than base color of pronotum, scutellum and head; costal area yellowish before margin, veins brown. Legs light brown; abdominal sterna brownish, apical margin slightly lighter.

Head with anterior and posterior margins parallel, curved; vertex about $6.5\times$ as wide as long. Pronotum $2.5\times$ as wide as long, posterior margin nearly straight. Scutellum wider than long; slightly longer than head and pronotum combined. Face slightly longer than wide across eyes. Anteclypeus bellshaped, slightly longer than wide apically. Postclypeus with lateral margins slightly angled; upper lateral margin straight, reaching to below ocellus of corresponding side; ocelli apart at about $2\times$ the distance from ocellus to eye. Forewing with 4 apical, 2 antepical, and 1 discal cell; no 2nd costal cell. Tibiae oval in cross-section. Metatibia strongly spinulous on 3 margins, inner-upper margin with about 30 hair-like spines.

Female Genitalia.—VII sternum slightly longer than VI, broadly and

shallowly concave; pygofer as long as abdominal sterna together; ovipositor narrow, surpassing pygofer by a length equal to its width.

Male Genitalia.—Valve flattened laterally, deeper basally than apically, short pilosity along apical $\frac{1}{2}$ of upper margin; in ventral aspect triangular. Style with apical lower outer shelf strongly upcurved. Aedeagus slender, slightly curved cephalad, with moderately large socle as seen in lateral aspect. Pygofer with upper-inner margin globose, membranose; with a straight sclerotized appendix above membranous area. Tenth tergum produced ventro-cephalad as a single pointed projection. Connective triangular, flattened dorsoventrally, with short vertical knob where it meets the aedeagus. Length 4.6–5.00 mm.

See discussion under *Parachunroides* for characters to separate *Adchunroides* from allied genera. The name of the genus suggests its resemblance to *Chunroides*. The appendix of the pygofer is slender, paddle like, and projects from the dorsal-caudal margin in *Chunroides*, whereas it is heavy, straight, and projects from above the membranous apical area in *Adchunroides*.

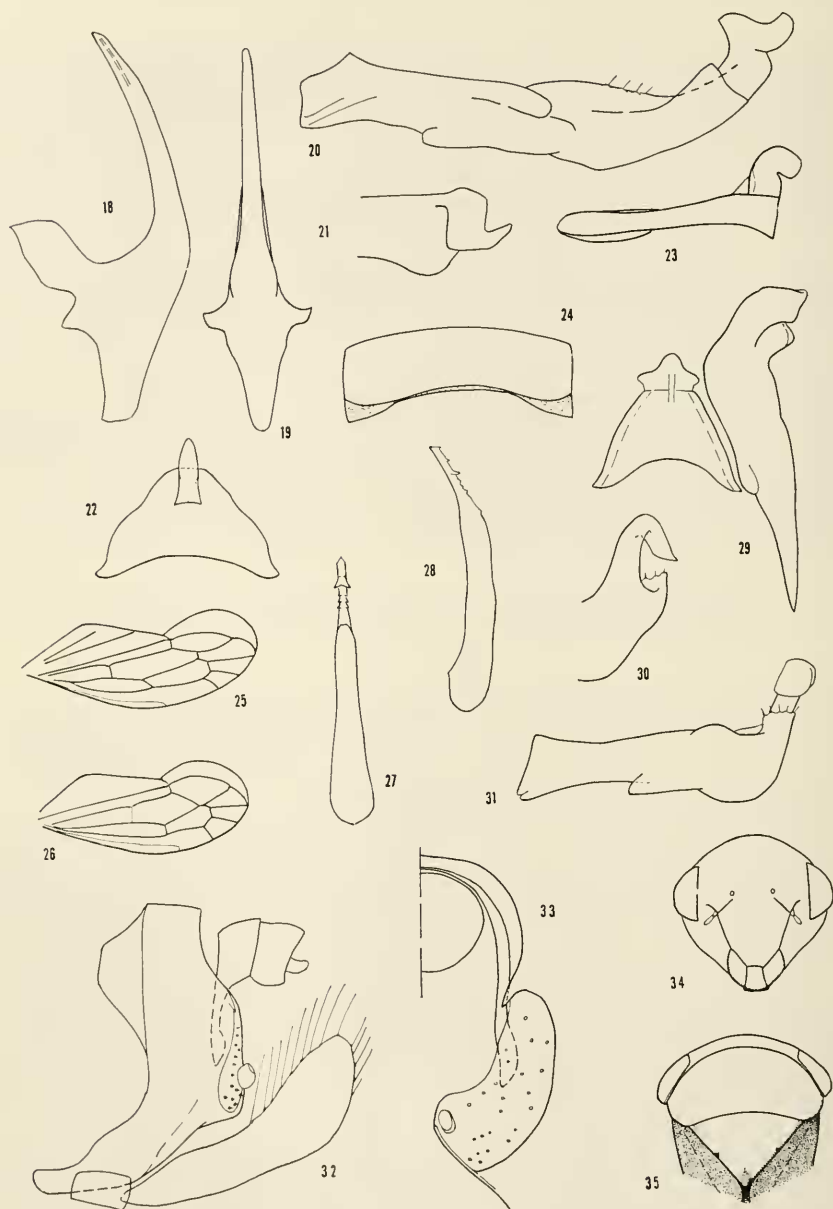
Adchunroides triangularis Maldonado-Capriles, new species
(Figs. 13–25)

Male.—Coloration of head, pronotum, forewings, legs, abdominal sterna, and scutellum as described for genus. Two blackish brown spots high on crown, closer to eyes than ocelli; postclypeus with 2 incomplete rows of brown spots; 1st segment of beak dark brown.

Head with vertex $6.5\times$ as wide as long (13:2); pronotum about $2.5\times$ as wide as long (21:8). Face very slightly longer than wide across eyes (24:23). Anteclypeus slightly longer than wide apically (5:4); ocelli apart about $2\times$ the distance from ocellus to eye (8:4). Scutellum $1.5\times$ as wide as long (16:11), as in Fig. 17. Spines of margins of metatibia as follows: Upper-outer with 6 vertical strong spines, upper-inner with 15 fine subvertical, lower-outer with 10 fine; and lower-inner with 35–40 hairlike spines. Length 4.7 mm. Genitalia as in Figs. 14, 15 and 18–24; valve with apical margin slightly convex.

Female.—Coloration as in male; markings on postclypeus more abundant and better defined; abdominal sterna stramineous; ovipositor light brown. Head with vertex $7\times$ as wide as long (14:2); pronotum about $2.5\times$ as wide as long (24:10); scutellum about $1.5\times$ as wide as long (18:13); face across eyes as wide as long (26:26). Genital segments as described for genus. Length 5.0 mm.

Holotype.—♂, British Guiana, New River, 750 ft, March 26–April 2, 1938. C. A. Hudson coll., in BMNH. *Allotype*.—♀, same data. Paratypes 4♀♀:



Figs. 18-25. *Adchunroides triangularis*. 18, aedeagus, lateral. 19, aedeagus, caudal. 20, style, lateral. 21, style, apex, dorsal. 22, connective, dorsal. 23, connective, lateral. 24, valve, ventral. 25, forewing. Figs. 26-35, *Rotundicerus luteus*. 26, forewing. 27, aedeagus, caudal, 28, aedeagus, lateral. 29, connective and style, dorsal. 30, apex of style, from behind. 31, style, lateral. 32, genital capsule, lateral. 33, detail of genital capsule, caudal, larger scale. 34, face. 35, head, pronotum, scutellum, dorsal.

1♀, Katari sources, January–February 1936, in JMC; 3♀♀—2 same data as holotype, 1 from Oronoque and New River Heads, in BMNH.

See discussion under *Parachunroides* for characters to separate *Adchunroides* from allied genera.

Etymology.—The trivial name makes reference to the triangular spots on the scutellum.

Rotundicerus Maldonado-Capriles, new genus

Type-species: *Rotundicerus luteus*, n. sp.

Head, pronotum, and scutellum mostly yellow. Forewings translucent with a brownish tinge, veins mostly brown; costal and claval margins reddish. Legs and abdominal sterna brownish.

Head globose; vertex finely shagreen; anterior and posterior margins strongly curved, parallel; vertex about $7.5\times$ as wide as long medianly. Face slightly wider across eyes than long; postclypeus with lateral margins angled at about midlength; lateral frontal sutures short, pointing to above level of ocellus of other side. Ocelli set apart at a distance about equal to distance from ocellus to eye. Anteclypeus bellshaped, slightly longer than wide apically. Lora flat, semicircular, short. Gena flattened, margin nearly straight. Pronotum about $2.5\times$ as wide as long, posterior margin broadly concave. Scutellum slightly inflated basically and apically; slightly longer than head and pronotum together. Forewing longer than abdomen; with 4 apical, 2 anteapical, and 1 discal cell; 2nd–4th apical cells arising from apex of outer anteapical, inner anteapical not ending in a cross vein, its longitudinal veins meeting.

Female Genitalia.—VII sternum slightly longer than VI, caudal margin straight; pygofer about as long as abdominal sterna together, bare; ovipositor narrow, slender, surpassing pygofer by $2\times$ its width.

Male Genitalia.—Valve flattened, in lateral aspect deeper apically than basally, in ventral aspect triangular; long, hairy on apical $\frac{1}{2}$ of upper margin. Style as in Figs. 29–31. Aedeagus straight, without socle, caudal side on apical $\frac{1}{2}$ with scaly appearance. Tenth tergum short, sides produced ventrad. Pygofer with an apical membranous area ending on a small knob-like structure. Connective triangular. Last sternum rectangular. Length 4.7–4.8 mm.

The shape of the inner anteapical and the first apical cell (Fig. 26), the globose head, and the genitalia, especially the membranous area of the pygofer, separate this genus from other idiocerine genera. The Ethiopian genus *Rotifunkia* has a more extensive membranous area on the pygofer and the rest of the genitalia is different.

Etymology.—The generic name makes reference to the somewhat globose

head and ends with *cerus* a particle, meaning antenna, commonly used in the names of idiocerine genera.

Rotundicerus luteus Maldonado-Capriles, new species
(Figs. 26-35)

Male.—Coloration of head and pronotum yellow; gena yellowish; anteclypeus narrowly dark brown apically; scutellum greenish yellow, lighter than pronotum, at about midlength of lateral margin and apically with small brownish spot. Pronotum laterally and legs stramineous or pale brownish; spines along margins of metatibia brown, with costal margin reddish on basal $\frac{2}{3}$, a small brown area at end of reddish area; apical $\frac{1}{2}$ of 2nd costal and contiguous $\frac{1}{3}$ of 4th apical cell almost hyaline, much lighter than other cells. Inner margin of clavus reddish; apical veins of brachial cell whitish.

Vertex $7.5\times$ as wide as long medianly (15:2). Face slightly wider across eyes than long (25:24). Postclypeus and ocelli set apart slightly more than distance from ocellus to eye (6:5). Anteclypeus slightly longer than wide apically (5.5:5). Pronotum over $2\times$ as wide as long medianly (22:10). Scutellum over $1.5\times$ as wide as long (17:12). Spines on margins of metatibia as follows: lower-outer with 6 strong spines, upper-outer with 14 finer spines, lower-inner with 8 fine spines, and upper-inner with 30-35 hairlike spines. Length 4.8 mm. Male genitalia as in Figs. 28 to 33.

Female.—Coloration and shape much as in male. Vertex $7.5\times$ as wide as long medianly (15:2). Pronotum slightly less than $2.5\times$ as wide as long (23:10); scutellum about $1.5\times$ as wide as long (17:13), face slightly wider than long (25:24); postclypeus slightly longer than wide (6:5). Seventh sternum with posterior margin slightly convex; ovipositor surpassing pygofer by $2.5\times$ its width. Length 4.9 mm.

Holotype.— δ , British Guiana, Katari sources, January-February 1936, G. A. Hudson collector, BM 1936-360, in the BMNH. *Allotype*.— η , same data. *Paratypes*.—1 δ , same data, in JMC; 1 δ , N. River, August 1934, Hudson collector. The contrasting yellow anterior parts of the body and the brown forewings with reddish margins easily identify this species. Two other Neotropical species, *Idiocerus flavidus* Osborn and *I. maricensis* Caldwell, have similar yellow and brown contrasting areas, but both lack reddish areas on the forewing.

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